Technical Report BAM(8810/20/30/40/50/60)E

Colour Series of 16 equidistant colour steps in CIELAB colour space between White W and 6 colours CMYOLV using relative 3-dimensional coordinates cmy0*, cmy1*, and cmy2*

Author: Prof. Dr. Klaus Richter

Federal Institute of Materials Research and Testing (BAM)

Head of Project Group: Visual Methods and Image Reproduction for NDT

Unter den Eichen 87 D-12200 Berlin, Germany email: klaus.richter@bam.de

Internet: www.ps.bam.de or http://o2.ps.bam.de

Tel. +49-30-8104-1834 or 3587/8/9

Fax +49-30-8104-1837 Creation date: 2000-07-05

Revision date:

This BAM Technical Report exists as pdf- and html-file. Click for change to the other version:

http://o2.ps.bam.de/INFVM03/8810/BAM8810E.PDF http://o2.ps.bam.de/INFVM03/8810/BAM8810E.HTM

Data and URL addresses:

The Technical Reports 8810, 8820, 8830, 8840, 8850, and 8860 include $cmyolv^*$ data for 16-step equally spaced colour series in linear and x-chart arrangement. The PostScript files of these reports include 16-step equidistant data in $cmyolvnw^*$ coordinates between White W and CMYN (series 8810), W and OLVN (series 8820), Black N and CMYW (Series 8830), and Black N and OLVW (Series 8840) both in linear arrangement (2 times the same 4 colours) and x-chart arrangement (2 times one of four colours CMYN, CMYW, and CLVW). The colour series 8850 and 8860 use opponent colours (opponent colour c^* of o^* , v^* of y^* etc.) for mixture instead of n^* to produce the series CMYOLV to Back N. This technic is known as no under colour removal. For some devices the output of e. g. 8830 and 8850 is the same, for others not.

This is therefore a multipage (8-page) presentation for xchart=0,1 and xcolor=0,1,2,3:

For xchart=0:

xcolor = 0: Two identical series CMYN, OLVN, CMYW, OLVW (using data cmy0* and cmy0* in the digital input file)

xcolor = 1: Two different series CMYN, OLVN, CMYW, OLVW (using data cmy0* and cmy1* in the digital input file)

xcolor = 2: Two identical series CMYN, OLVN, CMYW, OLVW (using data cmy1* and cmy1* in the digital input file)

xcolor = 3: Two different series CMYN, OLVN, CMYW, OLVW (using data cmy1* in the digital input file and cmy2* stored in the PS-RIP system)

For xchart=1:

xcolor = 0: x-chart arrangement of 2 times one colour CMYOLVN (using data $cmy0^*$ and $cmy0^*$ in the digital input file)

xcolor = 1: x-chart arrangement of 2 times one colour CMYOLVN (using data $cmy0^*$ and $cmy1^*$ in the digital input file)

xcolor = 2: x-chart arrangement of 2 times one colour *CMYOLVN* (using data *cmy1** and *cmy1** in the digital input file)

xcolor = 3: x-chart arrangement of 2 times one colour *CMYOLVN* (using data *cmy1** in the digital input file and *cmy2** stored in the PS-RIP system)

It is intended to have the data $cmy2^*$ stored in the PS-RIP Software of Display-PostScript software or in the PS-RIP software of a colour device (e. g. within a PS-Printer). This allows to use the correction data which may be different for every printer and stored in the printer a s different $cmy2^*$ with the intention to produce the same 16-step output colours on every printer for digital reference files with equally spaced data cmy^* .

Remark: This report gives no guidelines how to produce and/or to calculate the data *cmy1** or *cmy2** and how to store these data within the operating system or the PS-device.

Technical Report BAM(8810/20/30/40/50/60)E

Remark: SC28 has produced methods to calculate *cmy1** (SC28-Documents *j28n380*, *j28n381*: February 2000/Draft of DIN 33872 and charts of DIN 33872, see www.actech.com.br/sc28).

The Technical Report 8810 includes two different 16-step colour series (F3 and F7) between White W and the 4 offset colours CMYN of ISO/IEC 15775 with CIE-lightness $L^*=95$ of White W as basis.

http://o2.ps.bam.de/INFVM03/8810/A4Q8810E.PDF

http://o2.ps.bam.de/INFVM03/8810/A4Q8810E.PS

The Technical Report 8820 includes two different16-step colour series (F3 and F7) between White W and the 4 offset colours OLVN of ISO/IEC 15775 with CIE-lightness L^* =95 of White W as basis.

http://o2.ps.bam.de/INFVM03/8820/A4Q8820E.PDF

http://o2.ps.bam.de/INFVM03/8820/A4Q8820E.PS

The Technical Report 8830 includes two different 16-step colour series (F3 and F7) between Black N and the 4 offset colours CMYW of ISO/IEC 15775 with CIE-lightness L^* =95 of White W as basis.

http://o2.ps.bam.de/INFVM03/8830/A4Q8830E.PDF

http://o2.ps.bam.de/INFVM03/8830/A4Q8830E.PS

The Technical Report 8840 includes two different 16-step colour series (F3 and F7) between Black N and the 4 offset colours OLVW of ISO/IEC 15775 with CIE-lightness $L^* = 95$ of White W as basis.

http://o2.ps.bam.de/INFVM03/8840/A4Q8840E.PDF

http://o2.ps.bam.de/INFVM03/8840/A4Q8840E.PS

The Technical Report 8850 includes two different 16-step colour series (F3 and F7) between Black N and the 4 offset colours CMYW of ISO/IEC 15775 with CIE-lightness L^* =95 of White W as basis.

http://o2.ps.bam.de/INFVM03/8850/A4Q8850E.PDF

http://o2.ps.bam.de/INFVM03/8850/A4Q8850E.PS

The Technical Report 8860 includes two different 16-step colour series (F3 and F7) between Black N and the 4 offset colours OLVW of ISO/IEC 15775 with CIE-lightness $L^* = 95$ of White W as basis.

http://o2.ps.bam.de/INFVM03/8860/A4Q8860E.PDF

http://o2.ps.bam.de/INFVM03/8860/A4Q8860E.PS

The Technical Reports 8710, 8720, 8730, and 8740 include similar data. See for instance:

http://o2.ps.bam.de/INFVM03/8710/TEC8710E.PDF